

Air Pollution Control Division

Canton City Health Department

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CERTIFIED MAIL

April 18, 2001

Mr. Howard J. Wenger, President
Northstar Asphalt Inc.
7345 Sunset Strip NW
North Canton, OH 44720-2646

Re: **VE Violations of July 24 & 26, 2000 - Follow-up of 09/25/00 NOV letter;
Northstar letters dated 10/13/2000 (Malfunction report); 10/18/2000 (response to
NOV); and 02/21/2001 (PMMAP)
15 76 17 1157P901**

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AIR ENFORCEMENT BRANCH,
U.S. EPA, REGION 5

Dear Mr. Wenger:

This Agency is responding to the above noted letters regarding the corrective actions which Northstar Asphalt Inc. (Northstar) needs to take as a result of the VE violations which were documented by this Agency on July 24 & 26, 2000. The following is a recap of the action items contained in our Notice of Violation (NOV) letter which was sent to Northstar on September 25, 2000. Each item includes the status as to whether or not Northstar has completed the compliance milestone of concern and the outstanding actions that Northstar yet needs to take in order to fulfill the requested actions contained in the NOV letter.

1. **Northstar Asphalt, Inc. management and personnel are requested to review all applicable Ohio EPA - OAC regulations, guidelines and PTO terms and conditions and then take appropriate measures to assure compliance with all applicable regulations as enclosed with this letter by**

Northstar has confirmed in a letter dated 10/18/2000 that Northstar management has reviewed the terms and conditions of their PTO and has become more knowledgeable in regards to the malfunction reporting requirements. No further action is necessary for this item provided that Northstar can demonstrate compliance during the next performance test as required below.

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2. **Northstar Asphalt, Inc. is to submit a copy of the facility baghouse maintenance records, daily VE checks and pressure drop readings for the time period between August 1, 1999 and September 1, 2000 by**

This Agency received the requested information on October 25, 2000. No further action is necessary for this item.

3. **Northstar Asphalt, Inc. is to submit as quickly as possible an ITT notice to perform a stack test on the P901 emissions unit in accordance with the conditions outlined in this letter, with the testing to be conducted no later than.....**

The original deadline for completing this action item was October 30, 2000. However, after meeting with Northstar on October 6, 2000 to discuss the NOV requirements, it was determined that the testing should be completed by **June 15, 2001**.

Ohio EPA has retracted their initial guidance and has instructed this Agency to not require the testing for VOC, CO, and NOx, and the particulate back-half analysis for nonfilterable particulate using USEPA Method 202. The reason for this change in direction from Ohio EPA is because the violation which was documented only pertained to an opacity violation. Consequently, Ohio EPA has instructed this Agency to only require a particulate test in order to determine if Northstar is in compliance with the particulate mass emission limit contained in your Operating Permit for emissions unit P901.

Northstar shall submit written confirmation to this Agency that the test will be held in June, 2001. Furthermore, also note that Northstar must submit an Intent to Test (ITT) notification to this Agency. We will accept a ten (10) working day ITT notice. All the operating parameters anticipated during the emissions test, as described below, are to be documented on the ITT form to be submitted to this Agency. **It is also requested that a pretest meeting be held prior to the test.**

The testing shall be done in accordance with the following (revised from the NOV letter):

The emissions test is to be conducted under the set of operating conditions that will result in the worst case particulate emissions that this asphalt drum mix plant will be subjected to at any time during the future operation of this plant. These worst case operating conditions shall include at least the following:

- *operating at the maximum production rate (tons/hour of asphalt produced) this plant can ever expect to achieve;*
- *highest dryer operating temperature that might be encountered during operation of this plant (excess air dampers closed);*

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- *job mix formula using combinations of raw materials which are anticipated to be contributing factors towards high particulate emissions(e.g. combinations including the usage of RAP, latex, or other mix combinations; virgin aggregate, slag, or any other type of material considering minimum fines and maximum coarse size aggregate);*
- *fuel shall be used oil based on the allowable specifications in the PTO issued December 12, 1996;*
- *identify the supplier of the aggregate;*
- *document the amount of each raw material used during the emissions test;*
and
- *provide the date of the most recent burner tuning.*

The emissions test shall be performed utilizing the test methods noted as follows:

- *particulates, using EPA Method 5, of 40 CFR Part 60, Appendix A; and*
- *visible particulate emissions exhausting from the baghouse stack using EPA Method 9, of 40 CFR Part 60, Appendix A.*

Provided compliance is demonstrated after completion of the emissions test, the operating parameters monitored during the emissions test will be used as the basis to set operating limitations and monitoring requirements through the incorporation of additional special terms and conditions to either the Permit to Operate renewal or modifying the Permit to Install for Northstar Asphalt, whichever will be appropriate upon completion of the test.

4. **Northstar Asphalt, Inc. is to submit a written report covering the cited malfunctions in accordance with OAC Rule 3745-15-06 (B) (1), (2) & (3) by.....**

This report was due by October 30, 2000. This Agency received Northstar's malfunction report on October 16, 2000. An evaluation of this report determined that future malfunction reports submitted by Northstar need improvement. All future malfunction reports which Northstar may have to submit to this agency shall be prepared using the format in the attached document titled "Malfunction Report" (see Attachment A).

5. **Northstar Asphalt, Inc. is to submit and implement an acceptable Preventive Maintenance and Malfunction Abatement (PMMA) plan as outlined in the NOV letter with a *Schedule of Implementation* by.....**

The PMMA plan was due by November 15, 2000. This Agency either never received the PMMA plan by this deadline or it was somehow lost upon receipt. Upon request by this Agency, Northstar provided the PMMA plan on February 21, 2001.

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Upon review of Northstar's PMMA plan, this Agency has determined that the quality of the proposed plan needs to be improved. Northstar shall improve and resubmit the PMMA plan to this Agency in accordance with the following:

The requested improvements are in accordance with the guidelines provided in Ohio EPA's Operation and Maintenance manual.

Daily checks for the baghouse:

1. Compressed-Air System - check for air leakage (low pressure), and check the valves.
2. Collector - observe all indicators on control panel and listen to system for properly operating subsystems; check integrity of external structure; check counterflow audible air infiltration into fan, baghouse (solids discharge valve, access doors, shell), and ductwork.
3. Rotating equipment and drives - check for signs of jamming, leakage, broken parts, wear, and any other visible defects.
4. System Fan - check for bolt tension and wear, and lubrication.
5. Dust removal system - check to ensure that dust is being removed from the system.
6. Perform the checks as identified in your PMMA plan which was submitted on February 21, 2001 under Section 4.0 for pressure drop monitoring, temperature, and mix design (also, please provide a definition or an example of what will be provided for the mix design). You will need to provide the normal operating ranges for these items which will provide an indicator that further investigation of the system needs to be performed if it is discovered that the system is operating outside of these ranges (i.e., this may indicate that a malfunction has occurred).

Weekly checks for the baghouse:

1. Filter bags - check for tears, holes, abrasion, proper fastening, bag tension, dust accumulation on surface or increases in folds.
2. Damper valves - if any isolation, bypass, and/or cleaning damper valves are utilized, check each damper for synchronization and proper operation, and lubricate them as needed.
3. Cell plate - clean the surface, and check for warping and leaks.
4. Pulsejet Cleaning System - check cleaning system sequence and cycle times for proper valve and timer operation; check the compressed air lines, including oilers and filters; inspect any isolation dampers.
5. Hoppers - check for bridging or plugging; inspect the screw conveyor for proper operation and lubrication; inspect the compressed-air system for pneumatic units; and check the discharge valves for proper function.
6. Rotating Equipment and Drives - lubricate.

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7. Pressure and temperature instruments (this will also include the broken bag detector when the PMMA plan is revised) - clean and check for proper operation and calibrate as needed.

Monthly checks of the baghouse:

1. Fan(s) - check for corrosion and material buildup; check bearings and shaft for wear and V-belt drives and chains for tension and wear.
2. Monitors - check for accuracy and calibrate all indicating equipment.

Semi-Annual (i.e., once prior to season startup and once during mid season) checks for the baghouse:

1. Inlet plenum - check baffle plate for wear, if appreciable wear is evident then the baffle plate shall be replaced; check for dust deposits; check for clean-side dust deposits.
2. Access Doors and Airlock - check all gaskets for wear and proper alignment and perform repairs as needed.
3. Motors, fans, and other associated equipment - lubricate all motors, speed reducers, exhaust and reverse-air fans, and similar equipment; perform the checks identified in Section 3.0 of the PMMA plan which was submitted on February 21, 2001.

Annual (i.e., once prior to season startup) checks for the baghouse:

1. Collector - check all bolts and welds; inspect entire collector thoroughly; clean and touch up paint where necessary.
2. Filter bags - conduct ultraviolet light/fluorescent dye tests to check for bag and seal integrity.

Additional monitoring and maintenance forms will need to be created to address the daily, weekly, monthly, semi-annual, and annual checks required above. Northstar staff can either create their own forms or they can use the forms which were provided to you from Ohio EPA's Operation & Maintenance Guidelines document. The forms from Ohio EPA's guidance document are from Figures 4-20, 4-24, and 4-25. The completed forms for the items noted above shall be submitted to the plant's maintenance and/or engineering departments for recordkeeping in a bound log book. Upon receipt of the form, the maintenance/engineering department supervisor shall sign it to acknowledge any problems which have been identified.

The PMMA plan shall also provide an identification of the types and quantities of the replacement parts which will be maintained in inventory for quick replacement. Ohio EPA's Operation & Maintenance document provides a sample inventory in Table 4-4.

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For the PMMA plan submitted on February 21, 2001, Northstar will also need to provide the normal operating ranges for the operating parameters identified in Section 2.2, 2.3, and 2.9. Operation outside of the normal ranges shall require further investigation to determine if a malfunction has occurred.

Please note that the improved PMMA plan shall also include the use of the broken bag detector, as requested below, and the actions which will be taken when the broken bag detector detects a leak in one or more bags in the baghouse.

For each of the PMMA plan requirements noted above, Northstar shall also maintain records of the corrective actions which were taken to resolve any problems which were discovered as a result of the monitoring activities. Ohio EPA's Operation and Maintenance manual provides a sample form in Figure 4-21 for maintenance repair work that needs to be performed. All repair work shall be signed by a maintenance/engineering supervisor.

In regards to the corrective actions for the PMMA plan, Northstar needs to provide more specific detail as to what actions will be taken when a malfunction is discovered. For example, if the broken bag detector detects some broken bags what procedures will be followed to replace the bags (i.e., will P901 be shutdown until the bags are replaced and how soon will the bags be replaced - hours or days?).

This Agency believes that, given the historical problems which have been documented at Northstar, that the above PMMA plan requirements are necessary in order to minimize, to the extent possible, the possibility of any future violations associated with the operation of emissions unit P901.

If Northstar has any objections to the above PMMA plan requirements then Northstar needs to provide a written response which shall provide the reasons why Northstar believes the above plan requirements cannot be completed. **Otherwise, Northstar's PMMA plan, which was submitted on 02/21/2001, shall be modified and improved in accordance with the above requirements, including adjustments for the use of the broken bag detector, and shall be submitted to this Agency by no later than July 15, 2001.**

6. **Northstar Asphalt, Inc. is to maintain daily records of the VE readings by a certified VE reader as required in the operating permit along with the additional information as outlined in the NOV letter by**

Northstar should have commenced action on this item upon receipt of the NOV letter. Northstar shall continue to perform this action item until a broken bag detector is installed on the baghouse. The requirement to perform the daily Method 9 readings will then be replaced by an alternative monitoring requirement as noted below in item #7.

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7. Northstar Asphalt, Inc. is to install a "broken bag detector" on the baghouse exhaust stack servicing Emissions Unit P901 by no later than.....

This action item should have been completed by March 1, 2001. To date, this action item has neither been initiated nor completed. Northstar objected to this action item in their October 18, 2000 letter. Northstar believes that if a broken bag detector is required then the requirement for daily Method 9 readings should be eliminated. This Agency agrees with this proposal. The requirement to perform daily Method 9 readings will be eliminated upon installation of the broken bag detector. However, this Agency believes that it is still necessary to monitor the plume characteristics for the baghouse stack. Consequently, in replace of the daily Method 9 readings, the following monitoring requirement will be required upon installation of the broken bag detector :

The permittee shall perform a daily check when the emissions unit (P901) is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;*
- b. whether the emissions are representative of normal operations;*
- c. if the emissions are not representative of normal operations, the cause of the abnormal operations;*
- d. the total duration of any visible particulate emission incident; and*
- e. any corrective actions taken to eliminate the visible particulate emissions.*

The above monitoring requirement will also be added to the Permit to Operate (PTO) upon renewal of the current effective PTO for emissions unit P901.

While this Agency will no longer require that Northstar maintain a staff person who is a certified opacity reader, this Agency recommends that Northstar maintain a certified opacity reader in order to determine if a violation has occurred in the event of a malfunction. This Agency believes that it will be to Northstar's benefit to be able to accurately determine if a violation of the opacity limitation has occurred, and, therefore, be able to take immediate actions to correct the problem.

The reasons why this Agency believes that the broken bag detector is necessary are as follows:

- A. The pressure drop data, which Northstar submitted to this Agency in accordance with the NOV letter, did not vary significantly over the one year period (August 1999 to September 2000) for which data was provided. In particular, the pressure drop data

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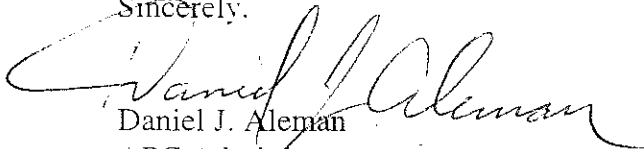
never showed an indication that something was wrong with the baghouse on the days in which this Agency documented VE violations and Northstar discovered that there were broken bags. This could have been due to a faulty pressure drop monitoring device.

- B. The VE readings which Northstar provided for the same one year period noted above also did not detect problems with the baghouse on the days which this Agency documented the VE violations. In addition, it should be noted that there were several VE readings which showed extreme spikes going from 10% opacity to 90% and then back to 10% over a thirty second interval. These types of readings may have indicated that a problem existed with the baghouse, however, there was no documentation of maintenance performed on the baghouse at the times of these spiked readings. The VE data was further questionable because it was clear that the VE reader filled out basic information (including sun location) on the form and then xeroxed the form for use. Consequently, it was impossible to tell if the VE reader had a proper location for taking VE readings each day.

This Agency is, once again, requesting that Northstar properly install, calibrate, and operate a broken bag detector on the baghouse serving emissions unit P901. **This Agency is requiring that the broken bag detector shall be installed, calibrated, and ready for continuous operation by no later than July 15, 2001.**

Please provide a written response within two weeks of this letter. Your response shall include a confirmation of the performance test for particulate emissions only prior to June 15, 2001, a confirmation that Northstar will have a broken bag detector installed, calibrated and ready for continuous operation on the baghouse serving emissions unit P901 by no later than July 15, 2001, and either a confirmation or objection to the above PMMA plan improvement requirements (the revised improved plan is also due by July 15, 2001).

Sincerely,


Daniel J. Aleman
APC Administrator

attachment: Attachment A - Malfunction Report format (to be used for future reports)

cc: Mr. Robert J. Dervin, Northstar Asphalt Inc.
Tom Kalman, Ohio EPA, DAPC
Lisa Holscher, USEPA, Region V ✓

“Attachment A”

Malfunction Report

1. **Facility I.D. number:** _____
Facility Address: _____
Person to contact: _____
Phone Number: _____

Provide the facility identification number (i.e., 15 76 17 1157), facility address, and the name and phone number of the individual who should be contacted for further information regarding the malfunction.

2. **Emissions unit(s) involved in the malfunction:** _____

Identify all control equipment used to control the above emissions unit(s): _____

Provide the Ohio EPA emissions units numbers for each emissions unit involved in the malfunction with brief description of the unit (e.g., P901 - 300 ton/hr Drum Mix Asphalt Plant). Also provide a description of the control device(s) used for each emissions unit(s) (e.g., 50,000 acfm pulse-jet fabric filter).

3. **Duration of malfunction:** _____

Provide the estimated or actual duration of the breakdown (i.e., the specific dates and total number of hours that the malfunction occurred).

4. **Estimated amount of emissions during the malfunction:** _____

Provide the nature and estimated quantity of air contaminants which have been or may be emitted into the ambient air during the breakdown period (e.g., pounds per hour of emissions as well as total pounds emitted during the malfunction, determination of actual opacity during the malfunction). This item shall include any appropriate calculations and/or data sheets (e.g., Method 9 VE readings) which were used to determine the extent of the excursion.

Malfunction Report continued

5. **Shutdown of emissions unit(s):** _____

State whether or not the shutdown or reduction of source operation during the breakdown period will be or would have been impossible or impractical. The report shall provide clear details as to why the shutdown or curtailment would be impossible or impractical.

6. **Reasonableness of malfunction period:** _____

State whether the estimated breakdown period will be or was reasonable in duration based on installation or repair time, delivery dates of equipment, replacement parts, or materials, or current unavailability of essential equipment, parts or materials. The report shall provide clear details regarding any delays for repair.

7. **Alternative operating procedures:** _____

State whether there are available alternative operating procedures and interim control measures which will be or have been implemented during the breakdown period to reduce adverse effects on public health or welfare. If no alternative operating procedures are to be utilized, a statement to this effect shall be included in the report.

8. **Compliance with PMMA plan requirements:** _____

State whether or not all actions necessary and required by any applicable preventive maintenance and malfunction abatement plan will be or have been implemented. If portions of the PMMA plan were not followed, those portions shall be identified in the report and include a clear explanation as to why those portions of the PMMA plan were not followed.